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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,230	09/30/2003	Javier Leija	884.A66US1	6381
21186	7590	11/15/2005	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH 1600 TCF TOWER 121 SOUTH EIGHT STREET MINNEAPOLIS, MN 55402			THOMPSON, GREGORY D	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/676,230

Applicant(s)

LEIJA ET AL.

Examiner

Gregory D. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on filing on 9/30/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-10 and 19-23 is/are allowed.
- 6) ☒ Claim(s) 1-3, 11-13 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 4-7, 14, 15 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

1. Claim 22 is objected to because of the following informalities: Claim 22 should depend on claim 19 to first introduce the second amount of heat and not claim 21 where the second amount of heat is already introduced. Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-3 and 11-13 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Mochizuki et al (2003/0081385).

Mochizuki teaches a processor (logic) chip 10 thermally coupled to a heat sink 12 in Fig. 4 with a spreading base (broad term) 12a, a first heat transfer device sink 13 with a number of parallel plate fins coupled (broad term) to a first portion (top) of base 12a which would have a first heat conduction rate to ambient air and a second heat transfer device vapor chamber 12d coupled (broad term) to a second portion (internal portion) of the base 12a which would have a second heat conduction rate (higher heat rate than the first rate) when the working fluid 12e is evaporated different from the first rate.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al in view of Aleksic et al (6,502,173).

Mochizuki teaches the claimed processor (logic) chip 10 thermally coupled to a heat sink 12 in Figs.4 with a spreading base 12a, first transfer device sink 13 coupled to first portion of base 12a with first heat rate and second transfer device 12d coupled to a second portion of base 12a having a second heat rate higher than the first heat rate as discussed in paragraph 3 above. Mochizuki does not teach nor suggest an information handling system (broad term) or random access memory (dual rate memory) in communication with chip 10. Aleksic teaches an information handling system (broad term) with electrical devices 12,14 in communication with dual data rate memory device(s) 16 in Fig 1. Therefore, it is considered obvious to one of ordinary skill in the art at the time the invention was made to provide the system and memory device(s) 16 of Aleksic in electrical communication with chip 10 in Mochizuki to provide an information handling system that processes data in particular electrical systems with chip 10 well cooled to avoid chip 10 breakdown thus keeping the system operational for long periods of time.

6. Claims 4-7,14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The cited art does not teach nor suggest that the second device include a

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thermoelectric device, thermoelectric device with fins and first device located up stream from the second device in a fluid path as claimed in claims 4-7 and 14-15, respectively.

7. Claims 8-10 and 19-23 are allowed.

The cited art does not teach nor suggest a heat sink with a vapor base, a first number of heat transfer structures coupled to a first portion of the base, a thermoelectric cooler coupled to a second portion of the chamber and a second number of heat transfer structures coupled to the cooler as claimed in claim 8 and conducting heat from a device into a heat spreading base, conducting a first amount of heat from the base into a first heat transfer device, conducting a second amount of heat greater than the first amount of heat from the base into a second heat transfer device and passing a fluid across the first device then across the second device as claimed in claim 19.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ghoshal et al and Kawabata et al teach cooling system.

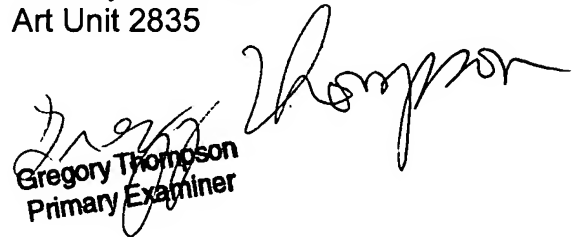
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory D. Thompson whose telephone number is (571) 272-2045. The examiner can normally be reached on Mon-Thru from 6:00 AM to 4:30 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory D Thompson
Primary Examiner
Art Unit 2835



Gregory Thompson
Primary Examiner